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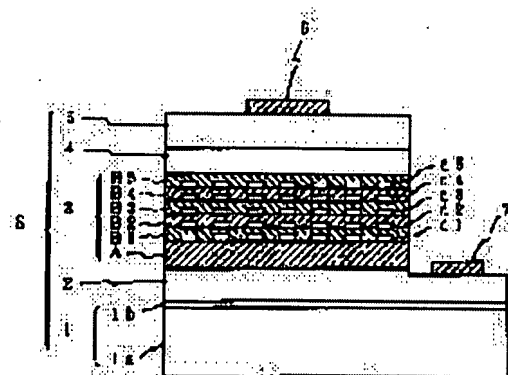
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(54) GAN SEMICONDUCTOR LIGHT EMITTING ELEMENT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a more efficient GaN light emitting element in which quantum dots therefor exhibit an optimal mode.

SOLUTION: A following multiple quantum dot structure 3 is provided as a part pertaining to light emission in a light emitting element. Quantum dots d1 of GaN material are formed while being distributed on a base surface, i.e., the upper surface of a crystal layer A composed of a GaN material and a crystal layer (cap layer) B1 of a GaN material is formed such that the quantum dots are embedded. The process is repeated using the upper surface of the cap layer as a new base surface to obtain a GaN multiple quantum dot structure where two or more sets of the quantum dots and the cap layer (d1, B1)-(d5, B5) are laminated. Band gap of dot material at each stage is smaller than the band gap of the cap material at that stage and the material of crystal layer providing the base surface thereof.



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